

Title: **Procedure for Washing Labware for Pesticide Residue Quality (PRQ)**

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## **1.0 OBJECTIVE**

To clean labware that has been or will be exposed to contaminants.

## **2.0 HEALTH AND SAFETY**

For washing and acid bath, personnel should wear apron or lab coat, gloves insulated against hot water and resistant to acid bath solution, and safety glasses. For solvent rinse, personnel should wear lab coat, solvent resistant gloves, and safety glasses. Solvent rinsing should be performed in a fume hood.

## **3.0 PERSONNEL/TRAINING/RESPONSIBILITIES**

Any employee who routinely works in the laboratory should be capable of performing this task. Training of new staff should be carried out under supervision of an experienced technical employee familiar with this SOP before the employee can work unsupervised.

## **4.0 REQUIRED AND RECOMMENDED MATERIALS**

This section lists the required supplies and equipment:

Pesticide grade acetone	Soap
Acid bath	Protective gloves
Deionized Water	Brushes
Lab coat	Apron

## **5.0 PROCEDURE**

### **5.1 Glassware, Metal ware and Teflon ware Cleaning**

1. Prior to washing, pesticide contaminated glass, metal and teflon ware will be rinsed with Acetone. Acetone from rinsing will then be placed in an appropriate container.
2. Wash in Hot Tap Water and Soap – scrubbing with brushes.
3. Rinse out Soap thoroughly in Hot Tap Water.
4. Place in 10% HCl Bath for no more than 2 hours.  
[DO NOT SOAK METAL OBJECTS IN ACID BATH]
5. Rinse 3 times with Hot Tap Water.
6. Rinse 3 times with Deionized Water
7. Rinse 3 times with Acetone into a spent-acetone receptacle. Acetone from rinsing will then be placed in an appropriate container.  
[DO NOT LET TIP OF ACETONE BOTTLE TOUCH LABWARE]

### **5.2 Plastics Cleaning**

1. Wash plastics in Tap Water and Soap – scrubbing with brushes.
2. Rinse out Soap thoroughly in Tap Water.
3. Place in 10% HCl Bath for no more than 2 hours.
4. Rinse 3 times with Tap Water.
5. Rinse 3 times with Deionized Water.
6. DO NOT USE ANY SOLVENTS ON PLASTICS.

### **5.3 After Washing**

1. Allow all labware to dry completely in an appropriately clean area, then cover openings with acetone-rinsed foil.

## **6.0 QUALITY CONTROL/QUALITY ASSURANCE**

Personnel should adhere to good laboratory practices while washing labware. This procedure should always be performed with proper precautions to minimize personnel exposure to acetone, dilute acid, contaminate residue, and hot water.

## **7.0 REFERENCES**

DeWoskin, R.S. 1984. Good laboratory practice regulations: a comparison. Research Triangle Institute, Research Triangle Park, North Carolina. 63 pp.

USEPA. 1979. Good laboratory practice standards for health effects. Part 772 - Standards for development of test data. Fed. Reg. 44:27362-27375, May 9, 1979.

USEPA. 1980. Physical, chemical, persistence, and ecological effects testing; good laboratory practice standards (proposed rule). 40 CFR 772, Fed. Reg. 45:77353-77365. November 21, 1980.